

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (previously presented) A method of optimizing dissemination of information in a distributed environment, said method comprising:

receiving a request at a first server for at least one of an application program and data from a client;

retrieving at said first server a location of a second server within said distributed environment storing said at least one of said application program and said data associated with said request;

packaging a message object with data associated with said request for transmission to said second server; and

transmitting said message object to said second server to allow said second server to directly service said client.

2. (previously presented) The method according to claim 1, further comprising:

receiving said message object at said second server; and

initiating said servicing of said client at said second server in response to a determination of said second server as a provider of said at least one of said application program and said data.

3. (previously presented) The method according to claim 1, further comprising:

receiving said message object at said second server; and

transmitting said message object to a third server in response to said determination of said third server to be a provider of said at least one of said application program and said data.

4. (previously presented) The method according to claim 1, further comprising:

determining said at least one of said application program and said data associated with said request from a profile;

determining if said second server is associated with said request; and

selecting said second server that is within a most efficient path for transferring each of said at least one of said application program and said data associated with said request to said client.

5. (previously presented) The method according to claim 1, further comprising:

packaging said request and a location of said at least one of said application program and said data providers into an itinerary; and

forwarding said itinerary to said second server associated with said request.

6. (previously presented) The method according to claim 5, further comprising:

completing a first service associated with said request on said second server; and

initiating a second service from said second server in response to said completion of said first service.

7. (previously presented) A method of optimizing dissemination of information in a distributed environment, the method comprising:

determining at a first server a location of at least one of an application program and data associated with a request from a client; and

transmitting a message object containing data associated with said request to a second server;

initiating a transfer of said at least one of said application program and said data from said second server directly to said client in response to said determination of said location of said at least one of an application program and said data.

8. (previously presented) The method according to claim 7, further comprising:

transmitting said request to said second server in response to said determination of said location of said at least one of said application program and said data.

9. (previously presented) The method according to claim 8, further comprising:

invoking a request for a subsequent said at least one of said application and said data to a third server by said second server.

10. (previously presented) A system for optimizing dissemination of information in a distributed environment, said system comprising:

a network;

a client configured to request at least one of an application program and data over said network;

a plurality of servers, each server configured to interface with said client over said network; and

a service-chaining module configured to be executed on each of said plurality of servers, wherein said service-chaining module is configured to retrieve a location of said at least one of said application program and said data associated with a received request, is configured to package said location of said at least one of said application program and said data as an itinerary list into a message object, is configured to transmit said message object to another server with said distributed environment, and is configured to service said message object for transfer of said at least one of said application program and said data directly to said client.

11. (previously presented) The system according to claim 10, wherein:

said service-chaining module is configured to generate an itinerary object containing said at least one of said application program and said data associated with said request and said associated location of said at least one of said application program and said data associated with said request.

12. (previously presented) The system according to claim 11, wherein:

said itinerary object is an instantiation of an itinerary class.

13. (previously presented) The system according to claim 12, wherein:

said itinerary class is implemented using an object oriented programming language.

14. (previously presented) The system according to claim 11, wherein:

said service-chaining module is configured to generate a message object configured to contain said itinerary object.

15. (previously presented) The system according to claim 14, wherein:

said service-chaining module is configured to forward said message object to a selected server.

16. (previously presented) The system according to claim 10, further comprising:

a service interface configured to be executed on each server of said plurality of servers, wherein said service interface is configured to perform a selected service on said itinerary object.

17. (previously presented) The system according to claim 10, wherein:

said service-chaining module is configured to receive said message object, to determine said location of said at least one of said application program and said data, to initiate transfer of said at least one of said application program and said data at said local server in response to a determination of said local server as a provider of said at least one of said application program and said data and to initiate a subsequent transfer of said at least one of said application program and said data from said local server.

18. (previously presented) The method according to claim 10, wherein:

 said service-chaining module is configured to receive said message object, to determine a server to service said message object, and to transmit said message object to a remote server in response to said determination of said remote server as a provider of said at least one of said application program and said data.

19. (previously presented) A computer readable storage medium on which is embedded one or more computer programs, said one or more computer programs implementing a method of optimization, said one or more computer programs comprising a set of instructions for:

 determining at a first server a location of at least one an application program and data for a request for at least one of said application program and said data from a client;

 transmitting a message object containing data associated with said request to a second server; and

 initiating transfer from said second server directly to said client of said at least one an application program and data at said second server in response to said determination of said second server as a provider of said at least one of said application program and said data.

20. (previously presented) The computer readable storage medium in according to claim 19, said one or more computer programs further comprising a set of instructions for:

 transmitting said request for said at least one of said application program and said data to a remote server in response to said determination of said remote server as a provider of said at least one of said application program and said data.

21. (previously presented) A system for optimizing dissemination of information in a distributed environment, said system comprising:

a network;

a client configured to request at least one of an application program and data over said network;

a plurality of servers, each server configured to interface with said client over said network; and

a service-chaining module configured to receive a message object from another server and to contain an itinerary list of said at least one of said application program and said data in response to said request from one of said plurality of servers over said network, wherein said service-chaining module is configured to perform transfer of an identified said at least one of said application program and said data on said itinerary list on a selected server of said plurality of servers directly to said client.

22. (previously presented) The system according to claim 21, wherein:

said selected server is preferentially selected to be local to said service-chaining module.

23. (previously presented) The system according to claim 22, wherein:

said service-chaining module is configured to reference a configuration data structure to determine said selected server.

24. (original) The system according to claim 23, wherein:

said configuration data structure is local to said service-chaining module.

25. (previously presented) The system according to claim 23,
wherein:

 said configuration data structure includes a Lightweight Directory
 Access Protocol server.